

CLAIM AMENDMENTS

Claims 1-14 (Cancelled).

15. (Currently Amended) A vaporizing device for vaporizing chemical vapor deposition (CVD) source materials comprising:

a vaporizer for vaporizing CVD source materials by heating, the vaporizer including a chamber having a heat conductive chamber wall with an inlet for introducing the CVD source materials into the chamber;

a spray nozzle having a first end located to spray a CVD source material into the chamber through the inlet;

a plate having at least one portion thinner than the chamber wall, contacting and locating the spray nozzle relative to the inlet to spray CVD source materials into the chamber, the plate limiting thermal conduction from the chamber wall, thereby thermally insulating the spray nozzle from the chamber wall;

a cooling block in physical contact with a portion of the spray nozzle adjacent the plate and surrounding the spray nozzle for conducting heat from and cooling the spray nozzle; and

a heat conduction restricting region between the cooling block and the chamber wall, thermally isolating the spray nozzle and the cooling block from the chamber wall.

16. (Previously Presented) The vaporizing device for vaporizing CVD source materials of Claim 15, wherein the spray nozzle includes first and second coaxial tubes, the first tube for passage of a gas containing the CVD source materials and the second tube for passage of a spray gas for spraying the CVD source materials into the chamber.

17. (Currently Amended) A chemical vapor deposition (CVD) apparatus comprising:
a vaporizer for vaporizing CVD source materials by heating, the vaporizer including a chamber having a heat conductive chamber wall with an inlet for introducing the CVD source materials into the chamber;

a spray nozzle having a first end located to spray a CVD source material into the chamber through the inlet;

a plate having at least one portion thinner than the walls of the chamber, contacting and locating the spray nozzle relative to the inlet to spray CVD source materials into the chamber, the plate limiting thermal conduction from the chamber wall, thereby thermally insulating the spray nozzle from the chamber wall;

a cooling block in physical contact with a portion of the spray nozzle adjacent the plate and surrounding the spray nozzle for conducting heat from and cooling the spray nozzle;
a heat conduction restricting region between the cooling block and the chamber wall, thermally isolating the spray nozzle and the cooling block from the chamber wall; and
a reaction chamber receiving the CVD source materials vaporized by the vaporizing device for forming a film on a substrate through reaction of the CVD source materials.

18. (Previously Presented) The CVD apparatus of Claim 17, wherein the spray nozzle includes first and second coaxial tubes, the first tube for passage of a gas containing the CVD source materials and the second tube for passage of a spray gas for spraying the CVD source materials into the chamber.